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**Household Impacts of Water Management Devices**  
**Summary of Initial Research**  
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***Background***

Since 2007, the City of Cape Town has been installing flow restricting water meters known as 'water management devices' (WMDs) in households across the city. As of June 2009, 31 000 WMDs had been installed (Cape Times, June 26, 2009), in areas such as Delft, Atlantis, Wesbank and Phillippi. Apart from a few infamous exceptions, these installations have taken place exclusively in poor communities.

The roll-out of WMDs forms part of the water conservation and water demand management strategy for the City of Cape Town – they are promoted to the general public as being about saving water, and about helping people to avoid going into arrears on their water bills.

*Promotional information about the WMDs (as per official pamphlets and press statements):*

- the devices are installed on a voluntary basis, after consultation with residents
- their aim is to help residents avoid running up huge bills through excessive use or leaks
- if people are on the indigency register, they can get the device installed free of charge, and get 10 500 litres per month (this is equal to 44l per person per day in an 8 person household = 350l per day). (You qualify for indigency if you are the registered owner of your property and earn less than R2880 per month).
- The city will write off arrears for indigent people if they stay on the device for 6 months.
- If you are not on the indigency register, you can pay a once off fee for installation, after which you can get 6000 litres per month, and any additional you commit to pay for.
- The WMD is set to switch on at 04.00 every morning, and will only switch off once you have used your set quota for that day. If you less that your quota in a day the amount you did not use will be carried over to the next day (except at the end of the month when any unused allocation for that month is cancelled, and the monthly quota started again).
- If you have problems with a water management device already installed in your home, with your municipal water meter, or with the water mains in your street, you can send an SMS to the number 31373. SMS's cost 80c each.
- If you run out of water for more than 24 hours, you can contact the Technical Operations Centre on 0860 103 054, at the cost of a local call.
- The city saves 156 000 litres per month, or R510 000, from households using the devices (Cape Times, June 26, 2009)

Civil society and community water activists have actively opposed the roll-out of these meters. They are viewed as being 'pre-paid meters in disguise' and discriminatory, since they are used primarily to restrict water to poor consumers. The City's approach has been further denounced as being un-transparent, since the initial 'pilot phase' escalated to full roll-out without any visible reflection on problems encountered during the pilot phase, and because consultation with targeted communities appears to have been minimal to non-existent. The issue has been complicated by political agendas (with anti-WMD sentiments labelled by the City as anti-DA/ pro-ANC sentiments... blurring issues and obscuring the point somewhat...). There are also allegations of corruption in awarding the tender. Aside from these institutional/ methodological problems, there have been many technical problems, with faulty devices, incompetent contractors, etc. The meters have also been criticised for preventing people from keeping track of their own consumption (since the meters themselves are inside a locked plastic box),

thereby exacerbating people's powerlessness and dependence on the state.

Most of this criticism has been based on a principled objection to any water demand management intervention of this kind. However, there has been little first-hand research into the *actual* impacts of the device on households. Hence the need for this research.

### *Aims and hypothesis*

The aim of this research was to gain a better understanding of the ways in which WMDs are experienced by individuals and households. This is intended as part of a broader and ongoing investigation of different water demand management approaches adopted by municipalities, particularly in the context of climate change. Although urban communities' access to domestic water is not impacted directly by rainfall variability or other climatic changes, they are impacted by governmental policies and practices. It is our hypothesis that municipal responses that are put in place to address water scarcity, whether that be direct physical scarcity or indirect financial scarcity, often have negative impacts on poor households.

### *Methodology*

A questionnaire was developed in 2008 by a research team made up of people from EMG, SAMWU, WESSA and others, with input from a social scientist experienced in questionnaire design. This questionnaire was intended to be used to conduct widespread surveys of communities impacted by the WMDs, with the help of volunteers from the Western Cape water caucus and UCT, but this research has not taken place to date. I used this questionnaire as the basis for my interviews, although I did not stick strictly to the questionnaire format, using it rather as guiding questions for more open-ended conversations. Each interview took between one and one and a half hours. I conducted the interviews with the assistance of Thabo Lusithi.

I conducted a total of 20 in-depth interviews, and had detailed conversations with over 40 households in different areas. The areas we conducted interviews in were Mitchells Village and 'TA4', both in Mitchell's Plain; Kleinvelei, near Kuil's River; and Witsand, on the outskirts of Atlantis. We gained access to these communities through members of the Western Cape water caucus, who were our hosts and who introduced us to the people we interviewed. This was therefore not a random interview process; we were, for the most part, introduced to people whose households had experienced difficulties with the devices. Furthermore, the situations in the different communities were very different, in terms of the roll-out process, the specific type of meter used, and therefore the kinds of impacts experienced by households.

These research results therefore do not represent an objective sample, nor can they tell us about the range or distribution of the impacts. This was rather an initial exploration of some of the ways in which the devices are being experienced by households. It was also possible, without conducting large numbers of in-depth interviews, to get a general sense of the extent and severity of the problems being faced in the different communities.

### ***Findings***

#### *General findings in all areas*

- People mostly said they were not consulted, or even if there was a meeting, that things were not explained clearly to them.
- Where the meters are 'activated', many people experience cut-offs every day as a result of leaks.
- Where the meters are set on 'free-flow', fewer people have problems, but many still experience cut-offs as a result of technical problems with the meters.
- Either leaks were not fixed before the meter was installed; or, the visible leaks were fixed but within a few weeks there were more leaks
- There is much confusion about bills - people are still getting bills even when on the meter;

other people are getting their meter read, but not receiving any bill – they are worried that when the bill comes it will be extremely high; other people receiving erratic bills (every few months).

- If people have problems with the meter, it is very difficult for them to get help.

#### The situation in Mitchell's Village and TA4

In TA4 and Mitchell's Village (TA3), the meters are now on free-flow, reportedly because the communities put up such resistance, and attended many meetings objecting to the meters (led by Sulaiman Stellenboom). But many people have had their water cut off when the meters break or malfunction – these cuts are without warning, and no amount of planning of responsible water use can prevent them. Many people are not receiving bills – either they are still being delivered to their old addresses, or the municipality has not caught up with them yet. Those people who are receiving bills are getting very high bills, and many are not paying them.

#### A story from TA4

When we met Jacobus Pieterse, his water had been off for 4 days. He was unaware of a leak before the cut-off, but woke up on Sunday morning to find a huge puddle beneath the bathroom sink, and his water cut off. He had tried to phone 3 different numbers, had been told on Monday that someone would come, but no-one had come yet (Wednesday). Each time he phoned, he had to buy a R5 talktime voucher, and each time his talktime ran out before he could get a firm answer from anyone. There is a toll free Telkom number – but no-one has a landline. There is a number you can sms, which they reply to asking for your address – but in these new housing developments, people do not yet have formal addresses. Suleiman then smsed the number, got a reply asking for an address, replied, but heard nothing back. The next day (Thursday) Jacobus sent me a 'please call me', and I called him. His water was still off, and he had phoned the Wynberg office again, but when he couldn't give an address (apart from an Erf number), was told they couldn't help him. I then phoned, and had strong words with them, telling them to go to Tafelsig and then phone Jacobus for directions. I spoke to Jacobus on Friday again – they had finally phoned him back, taken his Erf number, and then switched his water back on from their offices; it had switched off a short while later. He contacted them again, and was told they would send somebody to replace his meter.

#### The situation in Witsand

In Witsand, Atlantis, the WMDs are activated, and are set to deliver 450 litres per day. Many people experience frequent cut-offs. People without leaks report that their water cuts off fairly regularly, and that they know that if they do a load of washing or use more than usual for any reason, their water will switch off. Households with leaks have their water cut off on a daily basis. Many households go to the un-metered standpipe in the nearby informal settlement to collect water, do their washing etc. The people of Witsands have been living in their houses for nearly 2 and a half years – they have all only received two bills, on the 15<sup>th</sup> and the 28<sup>th</sup> of October 2008 – these bills were all over R600, and no-one we spoke to had paid them.

#### A story from Witsand

The Mbane household, consisting of a grandmother, her two granddaughters and one great-granddaughter, have their water cut off every single day. It only comes on again the next morning, usually at about 11 am. They know that they have a large leak underneath their toilet. They have reported it to the construction manager, who has an office on site, and who has said that he will come and fix it – but it is now many months later, and he has not come. They are not aware of any other numbers to call or places to turn to for assistance. They collect water in two 25 litre buckets every morning, before the water cuts, and go to the standpipe in the nearby informal settlement for any extra water they might need. The Mbanes use water from their buckets to flush the toilet; if that water is finished, they have to go to the standpipe to collect water; but they often just go to the toilet in the bushes. Nonkosi Mbane (25) has stomach problems, and often has to go to the toilet suddenly. Their only sources of income are a pension and a disability grant (approx R2010 per month).

### The situation in Kleinvlei

In Kleinvlei, the Aqualoc meter has been rolled out – this does not cut off after a daily limit has been exceeded, but is on low pressure – 8 litres per minute. People there are unhappy with the low flow, and with local governance – the local DA councillor has been promoting the Aqualoc, and there are allegations that her supporters/family are the only ones employed to install the meters; people complain that they are kept in the dark, and their dissatisfaction with the meters is ignored. People are worried about what will happen if there are fires; people are also still receiving high bills which they cannot afford to pay. Others made arrangements with the council to pay R50 per month for 6 months, after which their arrears would be scrapped. At least one household I spoke to had paid R50 per month for 8 months but still received bills saying that they owed over R1500. In Kleinvlei, a meeting was held before the meters were installed, where residents were told that the reason for the new meters was that the black meters were inside the yard, and were difficult to read, so they were putting in new meters outside the yard, where it would be easier to read. People I spoke to complained that these meters were often damaged by taxis and cars driving over them, because they were installed on the pavement close to the road. Also, I was told that the blue boxes around the meters were used by *tsotsis* to store guns and drugs.

### A story from Kleinvlei

The Jacobs household in Kleinvlei has never been in arrears on their water account. Mrs. Jacobs says 'The meter is not a good thing, but we accept it because we heard that they want to save water. I saw on the news about droughts – it is very scary to think of having no water'. Mrs. Jacobs attended a meeting about the meters before they were installed. Here, she says they were asked for permission, but told that even if they didn't give permission, they would get the new low pressure meter anyway. She lives with her daughter and two grandchildren, and says she wants them to learn about how important it is to save water and, most importantly, to never be in debt. When they first moved into their house, they received a very high bill, because the builders had used water from their property while building the house. Mrs. Jacobs borrowed money from a relative to pay this bill. She estimates that her household uses only 100 litres per day, because they are scared of receiving a bill they cannot pay. In order to reduce the amount of water they use, the Jacobs household do not use their shower, sharing a bucket bath each morning instead. They re-use their dishwashing water throughout the day, and use rainwater for their garden. They try to flush the toilet as seldom as possible.